

Generally the results of this test are very similar to those conducted with the 125W lamps (Table 1). Most species were taken in higher numbers with the HP1-T, including *Noctua pronuba* with a ratio of 385/301, *Agrochola circellaris* (82/53) and *Aporophyla lutulenta* (11/6). The genus *Agrotis* produced a ratio of 154/105, even greater than with the 125W lamp. A few species came in greater numbers to the MB/U lamp, and these included *Larentia clavaria* (11/6) and *Rhizedra lutosa* (96/80). Numbers of *Autographa gamma* must be treated with caution, as October produced a few nights of heavy immigration.

Conclusions

The size of the sample, in terms of number of species and individuals noted, is rather small and it would be unwise to draw too many conclusions from these data. It is worth noting that the gloomy comments heard about the poor performance of HQL lamps in comparison with MB/U are not borne out by this limited investigation — in fact, the reverse is suggested! Table 3 shows the relative distribution of selected species in both the 125 and 400 W trials.

Clearly much still remains to be learned about the various lamps available and their attractiveness to moths.

Further observations on *Aderus populneus* (Creutzer) (Col.: Aderidae)

In a pertinent and perceptive paper (*Ent. Rec.* 93: 208-209) Mr A.A. Allen questioned the remarkably diverse (in spider's webs, ash seeds, manure heaps and houses) range of situations in which *Aderus populneus* (Creutzer) has been observed. The purpose of this contribution is to throw further light on this topic, although conclusions must await further investigation.

Mr Allen's claim to establish a clearer understanding of the biology and periodicity of this rather rare species can now be amplified somewhat. I can speak only from knowledge of the species in Worcestershire, which provides a northern extension of its southern British range.

This species is essentially xylophagous (oak), overwinters as a quiescent imago. The thermal environment in winter appears to be crucial to survival.

It appears to me at the moment that *A. populneus* is one of a fastidious and sensitive group of xylophagous beetles which only rarely encounter the sum total of conditions required for successful colonisation. A number of these conditions are met most often in closed-canopy forest, and the omission of this species from the list of those indicating that relict habitat (Harding, P.T., Rose, F. 1986, *Pasture Woodlands in Lowland Britain*. ITE) may require review.

My experiences in Worcestershire show that successful populations of *Aderus populneus* may be limited to isolated trees which they may make no attempt to leave, utilising the tree for decades. The physical character of the dead wood appears to be important; adults overwinter in contraction-spaces between the annual rings of dry, delignified, papery, soft heartwood. I can throw no light on larval biology, although I am aware of winter populations of imagines numbered in hundreds, and there can be little doubt that this too is the larval habitat.

The habitat is supported by Mr D. Nash's recent finding (*Ent. Rec.* **102**: 186) and a number of those cited by Mr Allen (*op. cit.*). It is emphasised that the beetles do not hibernate in the strict sense, but that they merely become torpid. The thermal threshold for winter activity is at or about 9°C. when males will crawl within a tree, vibrating their antennae as those of *Aderus oculatus* (Paykull) do in summer.

Amongst the earlier records are some suggesting that *A. populneus* is synanthropic; if the species overwinters in buildings it may simply imply that populations very close at hand in the wild were subject to an unfavourable thermal regime in winter. One can look profitably here at other families of beetles. Amongst *Mycetophagus* some penetrate deep into the heartwood of trees to locate suitable wintering sites, and one British species is sometimes located in or near human habitation. Amongst *Cryptophagus*, *C. scutellatus* Newman is occasionally synanthropic and *C. scanicus* (Linnaeus) appears equally at home in buildings and trees. The thermal threshold for winter activity of *C. scutellatus* appears to be more or less identical with that quoted above for *A. populneus*. *Phloiophilus edwardsi* Stephens (which I have noted cohabiting with *A. populneus*) seems prevented from crossing this environmental threshold, despite the probably major effects of "wildwood" clearance on its behaviour. There is still much to discover about *A. populneus*, a species which appears to have high conservation value throughout all Europe.— P.F. WHITEHEAD, Moor Leys, Little Comberton, Pershore, Worcs WR10 3EP.

Early hibernators in 1991

When a new year begins, I always think the first moth to appear will be *Apocheima pilosaria*, and in past years this has often been true. In 1991 however, a female *Conistra vaccinii* was found on 11th January in a lighted shop window. Nothing further was seen until 11th February when I was waiting for a train at Gatwick Airport station. It was 17.15, the temperature was below zero and snow was everywhere. A moth flew by and, as luck would have it, settled on a colleague's coat. Although unprepared for sub-zero entomology, the moth was secured, a polythene bag doing duty as a pill-box. On examining the capture, in warmer surroundings at home, I was surprised to find that it was a fine male *Lithophane ornitopus* Hufn. What was it doing out on such an unsuitable night?— D. DEY, 26 Manor Avenue, Hassocks, West Sussex BN6 8NG.